



## Department of Energy

ROCKY FLATS FIELD OFFICE  
P.O. BOX 928  
GOLDEN, COLORADO 80402-0928

April 3, 2000

00-DOE-02169

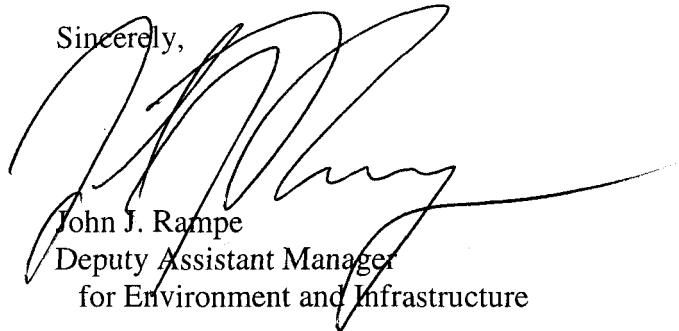
Dear Community Member:

Enclosed please find soil sampling data from the southern controlled burn area at the Rocky Flats Environmental Technology Site. These samples were taken in March and analyzed for gross alpha and beta activity to confirm previous sampling data and to further ensure that no significant radiological contamination was present in the area. Eighteen soil samples were collected and analyzed; a map showing the sample locations is also enclosed.

The data set is currently undergoing statistical analysis, but the data are consistent with other soil samples recently collected and shared with the public, which were consistent with background values.

Please call me at (303) 966-6246 if you have any questions. Thank you.

Sincerely,



John J. Rampe  
Deputy Assistant Manager  
for Environment and Infrastructure

Enclosures

cc w/Enc.:

Hon. Mark Udall

S. Gunderson, CDPHE

T. Rehder, USEPA

M. Weis, OOM, RFFO

J. Karpatkin, OOM, RFFO

J. Legare, AMEI, RFFO

M. Roy, OCC, RFFO

ADMIN RECORD

SW-A-003985

HRZ MATERIALS

## Summary of Pre-Burn Analyses Supporting the FY00 Proposed Prescribed Burn at RFETS

Prepared for Kaiser-Hill ES&S  
April 3, 2000

Media	Sample Number	Sample Location	Sample Date	Analyte	Result (pCi/g)	Background (pCi/g)	Statistical Test	Test Result
Soil	AQM5-RAD-3CM01	North	3/10/00	$\alpha/\beta$	15/31	22/24	Comparison	< 2 SD difference
Soil	AQM5-RAD-3CM02	North	3/10/00	$\alpha/\beta$	15/35	22/24	to	< 2 SD difference
Soil	AQM5-RAD-3CM03	North	3/10/00	$\alpha/\beta$	18/34	22/24	Background	< 2 SD difference
Soil	AQM5-RAD-3CM04	North	3/10/00	$\alpha/\beta$	17/31	22/24	using	< 2 SD difference
Soil	AQM5-RAD-3CM05	North	3/10/00	$\alpha/\beta$	14/31	22/24	Standard	< 2 SD difference
Soil	AQM5-RAD-3CM06	South	3/10/00	$\alpha/\beta$	15/28	22/24	Deviation	< 2 SD difference
Soil	AQM5-RAD-3CM07	South	3/10/00	$\alpha/\beta$	16/31	22/24	as	< 2 SD difference
Soil	AQM5-RAD-3CM08	South	3/10/00	$\alpha/\beta$	16/31	22/24	Error	< 2 SD difference
Soil	AQM5-RAD-3CM09	South	3/10/00	$\alpha/\beta$	18/34	22/24	(both	< 2 SD difference
Soil	AQM5-RAD-3CM10	South	3/10/00	$\alpha/\beta$	17/28	22/24	$\alpha$ and $\beta$ )	< 2 SD difference
Soil	Mean, North	North	3/10/00	$\alpha/\beta$	16/32	22/24		< 2 SD difference
Soil	Mean, South	South	3/10/00	$\alpha/\beta$	16/30	22/24		< 2 SD difference
Soil	AQM-SAB-01	South	3/24/00	$\alpha/\beta$	15/26	22/24	Comparison	< 2 SD difference
Soil	AQM-SAB-02	South	3/24/00	$\alpha/\beta$	14/27	22/24	to	< 2 SD difference
Soil	AQM-SAB-03	South	3/24/00	$\alpha/\beta$	15/23	22/24	Background	< 2 SD difference
Soil	AQM-SAB-04	South	3/24/00	$\alpha/\beta$	13/22	22/24	using	< 2 SD difference
Soil	AQM-SAB-05	South	3/24/00	$\alpha/\beta$	18/31	22/24	Standard	< 2 SD difference
Soil	AQM-SAB-06	South	3/24/00	$\alpha/\beta$	16/28	22/24	Deviation	< 2 SD difference
Soil	AQM-SAB-07	South	3/24/00	$\alpha/\beta$	16/24	22/24	as	< 2 SD difference
Soil	AQM-SAB-08	South	3/24/00	$\alpha/\beta$	16/27	22/24	Error	< 2 SD difference
Soil	AQM-SAB-09	South	3/24/00	$\alpha/\beta$	16/28	22/24	(both	< 2 SD difference
Soil	AQM-SAB-10	South	3/24/00	$\alpha/\beta$	12/24	22/24	$\alpha$ and $\beta$ )	< 2 SD difference
Soil	AQM-SAB-11	South	3/24/00	$\alpha/\beta$	13/26	22/24	.	< 2 SD difference
Soil	AQM-SAB-12	South	3/24/00	$\alpha/\beta$	15/28	22/24	.	< 2 SD difference
Soil	AQM-SAB-13	South	3/24/00	$\alpha/\beta$	13/23	22/24	.	< 2 SD difference
Soil	AQM-SAB-14	South	3/24/00	$\alpha/\beta$	17/28	22/24	.	< 2 SD difference
Soil	AQM-SAB-15	South	3/24/00	$\alpha/\beta$	16/31	22/24	.	< 2 SD difference
Soil	AQM-SAB-16	South	3/24/00	$\alpha/\beta$	13/22	22/24	.	< 2 SD difference
Soil	AQM-SAB-17	South	3/24/00	$\alpha/\beta$	16/29	22/24	.	< 2 SD difference
Soil	AQM-SAB-18	South	3/24/00	$\alpha/\beta$	11/25	22/24	.	< 2 SD difference
Soil	Mean	South	3/24/00	$\alpha/\beta$	15/26	22/24	.	< 2 SD difference

Media	Source Data	Sample Location	Analysis Date	Analyte	Mean Result (pCi/g)	Confidence Interval	Statistical Test	Test Result
Soil	FY00 Pu239 Isopleth	South	3/23/00	Pu239	0.1323	99.95%	Student "t"	t = -26.84 (soil < 1.0 pCi/g)

## Summary of Pre-Burn Analyses Supporting the FY00 Proposed Prescribed Burn at RFETS

Media	Sample Number	Sample Location	Sample Date	Analyte	Result pCi/g	Blank pCi/g	Result - Blank	Result Within How Many SD's of Blank?
Veg	BB1-T1	North	3/6/00	U-234	0.1180	0.1260	-0.0080	-0.5
				U-235	0.0180	0.0000	0.0180	+1.5
				U-238	0.0560	0.0140	0.0420	+1
				Pu239	0.0610	0.0430	0.0180	+1
				Am-241	0.0000	0.0420	-0.0420	(result = 0)
Veg	BB1-T2	North	3/6/00	U-234	0.0590	0.1260	-0.0670	-2
				U-235	-0.0060	0.0000	-0.0060	-0.5
				U-238	0.0960	0.0140	0.0820	+1.5
				Pu239	0.0030	0.0430	-0.0400	-2
				Am-241	0.0220	0.0420	-0.0200	-1
Veg	BB2-T1	South	3/6/00	U-234	0.1000	0.1260	-0.0260	-1
				U-235	0.0000	0.0000	0.0000	(result = 0)
				U-238	0.0000	0.0140	-0.0140	(result = 0)
				Pu239	0.0240	0.0430	-0.0190	-1
				Am-241	0.0420	0.0420	0.0000	0
Veg	BB2-T2	South	3/6/00	U-234	0.0340	0.1260	-0.0920	-2.5
				U-235	0.0260	0.0000	0.0260	+2
				U-238	0.0950	0.0140	0.0810	+1.5
				Pu239	0.0150	0.0430	-0.0280	-1
				Am-241	0.0350	0.0420	-0.0070	-0.5
Veg	BB2-T3	South	3/6/00	U-234	0.1180	0.1260	-0.0080	-0.5
				U-235	0.0160	0.0000	0.0160	+1.5
				U-238	0.1520	0.0140	0.1380	+2.5
				Pu239	0.0140	0.0430	-0.0290	+1.5
				Am-241	0.0100	0.0420	-0.0320	-2
Veg	BLANK			U-234	0.1260			
				U-235	0.0000			
				U-238	0.0140			
				Pu239	0.0430			
				Am-241	0.0420			

Veg	Mean	All	3/6/00	U-234	0.0858	0.1260	-0.0402	-1.5
				U-235	0.0108	0.0000	0.0108	+1
				U-238	0.0798	0.0140	0.0658	+1.5
				Pu239	0.0234	0.0430	-0.0196	-1
				Am-241	0.0218	0.0420	-0.0202	-1.5

	Sample Std. Dev.
U-234	0.038
U-235	0.013
U-238	0.056
Pu-239	0.022
Am-241	0.017

# Sample Plan for Southwestern Proposed Controlled Burn Area Visual Sample Plan Rendering - Systematic Grid, 1-Sample t-Test

